# INTEROPERABILITY MONTANA

CONTRACT EXTENSION STATEMENT OF WORK

FOR DECEMBER 1, 2006
THROUGH NOVEMBER 30, 2007

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# 1. EXECUTIVE SUMMARY

## 1.1 PURPOSE

The purpose of this Statement of Work (SOW) is to define the work that Northrop Grumman Information Technology ("the Contractor"), will perform for the Project Directors Board for the Montana-wide Interoperability Initiative under the MIS IT Services Contract No. SPB 06-1263B, dated July 1, 2006 between the Department of Emergency Services (DES) on behalf of the Project Directors Board and Northrop Grumman. This SOW incorporates by reference the terms and conditions of said Contract, and in case of any conflict between this SOW and the Contract, the Contract shall prevail.

## 1.2 BACKGROUND

The majority of Montana's existing public safety voice radio systems rely on 30 year-old technology. These systems represent local, State, and Federal agencies alike. From 1996-1998, working directly with state and local officials, two consulting groups (the Warner Group and Spectrum Resources Inc.) examined the history of the Montana Public Safety Communications Committee (MPSCC) and public safety radio needs in Montana. The studies concluded that development should proceed as a natural outgrowth of existing relationships and processes.

The MPSCC has evolved into the Montana State Interoperability Executive Council (SIEC). Ultimately, the purpose of the SIEC is to provide policy-level direction for matters related to planning, designing and implementing guidelines, best practices, and standard approaches to solve Montana's public safety communications interoperability problems and to leverage any opportunity in support of a Montana-wide system, including seeking Federal funding (or other funding) for Montana-wide interoperability.

The Montana SIEC has endorsed the Montana-wide Public Safety Radio Plan that enables Montana to achieve its' vision of the future. The plan encompasses a partnership among public safety and public service providers, a spectrum plan, the implementation of advanced technologies to include redundancy, and system failure analysis and recovery, and a commitment to long-term maintenance and support.

Implementation of the plan, which addresses the worst case scenario such as Weapon of Mass Destruction (WMD) or other catastrophic events such as a major earthquake or wild land fire, involves the phased build-out across the state. Each of the eight regions is comprised of a consortium of neighboring counties. Eight Consortiums were formed, comprised of neighboring local government and tribal public safety agencies. The SIEC asked the Project Directors of the consortiums to work together to look at an Implementations strategy. A strategy was adopt September 22, 2005 that included the concept of centralized project management.

The Montana Public Safety Services Bureau (PSSB) is providing the support to these incremental projects to verify system compatibility and interoperability on a Montana-wide basis.

## 1.3 SCOPE

The Contractor shall provide program management services to the Project Directors Board for the coordination of the diverse regional consortia to promote the evolution into a cohesive Montana-wide system in accordance with the Radio System Deployment Strategy and SIEC LAND MOBILE RADIO DEPLOYMENT DEFINITION STATEMENT AND TECHNICAL REQUIREMENTS. The Contractor shall provide all necessary personnel and services toward completion of the tasks defined in Section 2, below.

## 1.4 PERIOD OF PERFORMANCE

The period of performance for Contractor Program Management Support to the NTIP shall be December 1, 2006 through November 30, 2007.

# 2. GENERAL SCOPE OF WORK

## 2.1 STAFFING REQUIREMENTS

Northrop Grumman will provide a part-time program manager to oversee all project related activities, three (3) resources that will fulfill the roll of project managers, and one systems analyst. The project managers will work directly with stakeholders in directing and coordinating project activities. Northrop Grumman is proposing the following personnel for this SOW:

| | |
|---|---|
| Dennis Espeland | Program Manager – Part Time |
| Mark Adams | Project Manager – Full Time |
| Dave Clouse | Project Manager – Full Time |
| Tom Smith | Project Manager – Full Time |
| Barry Anderson | Project Manager – Half Time |
| Sherry Evans | Business Analyst – Full Time |
| Eric Durkin | Technical Analyst – Part Time |
| Patti Williams | Project Manager – Part Time |
| Jack Dartman | Technical Analyst – Part Time |

## 2.2 NORTHROP GRUMMAN CORPORATION SCOPE OF WORK - INCLUSIONS

The following is a list of the work to be performed under this SOW:

- Coordination and management of the overall interoperable communications design, development and implementation
- Leverage local, state and federal expertise in the identification and development of sites to implement the statewide design.
- Identify specific needs and specifications for site implementation.
- Prepare NEPA checklists.
- Develop a comprehensive project plan and timeline for all project-related activities, and track:
    - Actual progress against the project plan
    - Actual costs against budgeted costs
    - Site progress
- Attend local and State conferences on an as requested basis.
- Develop and maintain project control documents to include:
    - Project standards
    - Funding sources and expenditures
    - Change control documentation

  - Risk register
  - Communications plan
- Schedule, organize and facilitate meetings with potential vendors.
- Schedule, organize and facilitate program planning and design reviews.
- Consolidate all consortia needs assessments through:
  - Conducting a second analysis of all consortia needs assessments
  - Conduct additional interviews to supplement the existing I15-90 and Big Sky 11 needs assessments
  - Confirm completeness of existing assessments and solicit additional information through interviews as needed
  - Identifying field unit upgrade strategy
  - Defining the ICS command and control structure
  - Define the field unit inventory and needs
- Facilitate monthly Interoperability Montana Technical Committee (IMTC) and Interoperability Montana Project Directors (IMPD) meetings.
- Participate, and be a resource to, the IM Governance Committee.
- Assist in promoting project benefits and providing informational material to the public and interested stakeholders.
- Monitor State, local and Northrop Grumman efforts in obtaining signed site use agreements.
- Maintain the project documentation directory, and act as custodian of client-owned project information and data.
- Coordinate the infrastructure build out to include required paperwork, site preparation (infrastructure), installation of microwave and radio equipment, master control site upgrades and the Lewis & Clark ring upgrade.
- Coordinate the efforts of contractors during site infrastructure development, and microwave and VHF installations.
- Monitor contractor progress and performance against the project plan.
- Conduct program management review meetings every other month with results reported to the Board.
- Conduct and coordinate project closure activities.
- Working with the IMTC to develop an overall technical architecture that will include:
  - Backbone network
  - Design to prevent or protect loss of service
  - Preliminary design of the radio infrastructure for the regional consortia
  - Design to allow for growth
  - Field unit deployment strategy

- Identification of system management needs
- Uniform approach to tailoring the R-56 standard

## 2.3 NORTHROP GRUMMAN CORPORATION SCOPE OF WORK - OPTIONAL

The following are optional activities not currently planned to be accomplished by Northrop Grumman. As part of our project management responsibilities Northrop Grumman project managers will monitor the progress of those activities considered by the IMPD as necessary for the completion of the project. At the request of the IMPD via a Project Change Request (PCR) Northrop Grumman may assume responsibility for completion of one or more of these optional tasks.

- Acquiring signed site use agreements from site owners.
- Frequency analysis, identification, coordination and licensing.
- Training of field personnel on the use of new equipment and new procedures.
- Development of a disaster recovery plan.
- Consolidating state agency needs assessments.
- Schedule, organize and facilitate the transition from the current processes to the new network and use of equipment to include organizing talk groups and standard operating procedures.
- Asset inventory management.
- Acquiring building permits.
- Monitoring the quality control process of vendor supplied deliverables.
- Overseeing acceptance testing.
- Assist in seeking out additional funding opportunities.
- Implementation and migration planning.
- Conducting train the trainer sessions.
- Partnership development.
- Dispatch centers and control station development.
- Preparation and distribution of a project newsletter.

## 2.4 NORTHROP GRUMMAN CORPORATION SCOPE OF WORK - EXCLUSIONS

The following identifies the disposition of those activities and/or deliverables that were included in the previous SOW, but are excluded from this SOW:

| Section | Activity/Deliverable | Disposition |
|---|---|---|
| 3.2.1.1 | A. Mobile and portable coverage needs of local first responders | Addressed through the IMTC |
| | B. Dispatch radio console functionality requirements | Touched on through the IMTC, but not in |

| | | |
|---|---|---|
| | | sufficient depth |
| 3.2.1.3 | Prepare analysis of requirement tradeoffs | Excluded from this SOW |
| 3.2.1.4 | Document system functional and system requirements | Excluded from this SOW |
| 3.2.2.1 | Technical architecture – Radio infrastructure for the regional consortia | Addressed through the IMTC |
| 3.2.2.2 | Technical architecture – Backbone network | Addressed through the IMTC |
| 3.2.2.2 | Design to prevent or protect loss of service | Addressed through the IMTC |
| 3.2.2.2 | Design to allow for growth | Addressed through the IMTC |
| 3.2.2.3 | Deployment strategy recommendations | Addressed through the IMTC |
| 3.2.2.4 | Identification of system management needs for all major components | Addressed through the IMTC |
| 3.2.2.5 | Evaluation of alternative approaches | Addressed through the IMTC |
| 3.2.2.6 | Uniform approach to tailoring the R-56 standard | Addressed through the IMTC |
| 3.2.2.7 | Preliminary design | An iterative process that is a by-product of the design process |
| 3.2.3 | Technical requirements based on the conceptual design | Addressed through the IMTC |
| 3.2.4 | Build-out schedule for all eight consortia | Included in the project plan |
| 3.2.7.3 | Sharing of assets recommendation | Addressed through the IMTC |

## 2.5 DELIVERABLES

The following list summarizes the specific deliverables to be completed under this SOW:

- A comprehensive project plan and associated work breakdown structure (WBS)
- Monthly progress reports
- Consolidated state-wide needs assessment
- Project control documents to include:
    - Risk Management Plan

- Change Management Plan
- Communications Management Plan

- Site Inventory Database
- Radio GIS Mapping Data
- Post project review report
- Training Plan

# 3. STAKEHOLDER PARTICIPATION

## 3.1 STAKEHOLDER RESPONSIBILITIES

The following is a list of stakeholder responsibilities:

- Provide representatives to the IMTC (consortiums).
- Assign one resource that is empowered to make decisions that will interact on a daily basis with the Northrop Grumman project manager (IMPD).
- Develop local, tribal, state and federal partners (consortiums).
- Prepare pre-award letters (DES).
- Sign pre-award letters (individual jurisdictions).
- Negotiate site use agreements with site/land owners (individual jurisdictions).
- Prepare and submit the required forms for obtaining signed agreements (individual jurisdictions).
- Meet with site/land owners and county commissioners as required (individual jurisdictions).
- Leverage jurisdictional resources whenever possible to assist in site implementation (individual jurisdictions).
- Selection of mitigation strategies (IMPD).
- Provide technical support as needed to confirm system requirements (IMTC).
- Provide approvals on system specifications in a timely manner (all).
- Conduct site walkthroughs and provide customer acceptance of site improvements (IMTC).
- Ensure grant requirements, priorities and guidelines are met (DES).
- Ensure procurement procedures for equipment and services are in place (DES).
- Procure identified equipment and services (DES).
- Review and approve all submitted change orders (IMTC).
- Review, comment and approve project deliverables (IMTC).
- Training of field personnel (IMTC).
- Quality control of vendor supplied deliverables (IMTC).

## 3.2 STAKEHOLDER STAFFING REQUIREMENTS

Special attention must be given to how stakeholder-assigned tasks and activities are scheduled. To the extent possible, Northrop Grumman

will work with project stakeholders to mitigate the affect stakeholder availability might have on the project schedule.

The project plan and schedule is based on the assumption that representatives across all consortiums will allocate their time to project-related activities as best possible to avoid delays and schedule slippages. Certain members, specifically those that comprise the IM Technical Team, will have more demands placed on their time. This team will be responsible for providing technical input to site specifications, approving change orders, and conducting site visits.

# 4. PROJECT MANAGEMENT AND ADMINISTRATION

## 4.1 PROJECT MANAGEMENT

Northrop Grumman uses a proactive, flexible project management style that emphasizes partnership, communication, and cooperation. It is our goal to make sure the project is right the first time. We believe our approach ensures a successful, on-time, and within-budget implementation. We understand clearly our responsibility to manage this project by planning properly, anticipating problems, and communicating openly with the stakeholders on all issues.

We understand that the stakeholders will play a very active and important role in the design and implementation of the system. We will listen to and learn from all of the people made available to our team.

Northrop Grumman brings to each of our projects extensive and successful project management experience. On each project we undertake, we customize our standard project management components to ensure we are emphasizing and focusing on those particular items and aspects that are important to our client. For this project, we will apply that customization to ensure you receive what you consider necessary in the areas of:

- Regular Reports
- Timely Deliverables
- Ongoing Issue Reports
- Change Management

## 4.2 PROJECT CONTROL DOCUMENTS

### 4.2.1 RISK MANAGEMENT

Every project has some inherent risk, and it is the responsibility of good project management to be proactive in managing these risks. This involves identifying potential risks, documenting project risks to include an impact assessment, and to document mitigation and contingency strategies.

As part of our project management methodology, we will maintain a risk register that lists every risk along with some summary information. The risk itself will be documented on the Risk Statement form that will also identify the probability of the risk occurring.

A Risk Management Plan will be developed that will outline the procedures and processes for managing project risk throughout the life of the IM Project. Risk identification is an ongoing process, and each status report and monthly meeting should include risk management as a topic.

### 4.2.2 SCOPE MANAGEMENT

Scope management, also known as change management, is vital to the success of a project. One of the project control documents is the Change Management Plan that documents the procedures and tools for managing changes that could influence the project scope or project plan.

As the project management team, it will be the Contractors responsibility to monitor and track all change orders, whether they originate within the project team or from one of the contractors. Each change will be entered on the Change Control Register, and documented on a change control form.

All changes that affect the project scope, or that have a financial impact, must be approved by the stakeholders. The project management team will provide input to the decision making process, but it is the project stakeholders that are responsible for approving change orders.

### 4.2.3 QUALITY MANAGEMENT

Project quality management includes all the activities and processes to ensure the project will satisfy the requirements and expectations of its stakeholders. Quality management processes include:

- Quality Planning – determining the quality standards relevant to the project.
- Quality Assurance – applying quality related activities to ensure the project is following pre-defined processes and guidelines needed to meet project objectives (preventive).
- Quality Control – monitoring project results to confirm they meet and satisfy the project requirements (detection).

All three processes interact with each other throughout the project lifecycle. Another aspect of project quality management, is documenting “lessons learned”. Through this process, the project team will record how things could have been done differently in the interest of efficiency. This is especially important in projects that have repetitive tasks and activities.

### 4.2.4 COMMUNICATIONS MANAGEMENT

Communications management includes the processes required to ensure timely and accurate distribution, storage, retrieval and disposition of project information. These processes fall into the following four categories:

- Communications Planning – determining the information needs of stakeholders.
- Information Distribution – making project information available to stakeholders in a timely manner.
- Performance Reporting – collecting and distributing project performance information in the forms of status reports and forecasting.
- Manage Stakeholders – managing communications with stakeholders to resolve issues.

These four processes interact and overlap with one another. The nature of the project team in terms of number of stakeholders and diversity requires a well-established line of communication to keep all interested parties informed.

## 4.3 COMMUNICATIONS AND REPORTING

### 4.3.1 STATUS MEETINGS AND STATUS REPORTING

On a monthly basis, a project progress report will be prepared by the project manager for distribution to the IM Board of Directors and Technical Team. This report will identify the major accomplishments during the reporting period, plans for the next period, schedule status, new change orders that have been submitted, and any new risks that have been identified. In addition, each report will contain project issues or concerns.

### 4.3.2 QUARTERLY EXECUTIVE MANAGEMENT STATUS MEETINGS

Quarterly executive management meetings should be conducted and attended by State and local Northrop Grumman senior management. The meetings will be a formal discussion of project progress and issues, to include issue resolution for issues that have been escalated by the project team. Future project strategies will also be open for discussion.

### 4.3.3 ESCALATION PROCEDURE

Most project related issues and/or decisions will be addressed by the project management team and members of the IM Board or Technical Team. There may be occasion when agreement cannot be reached, or the project team feels they do not have the authority to resolve an issue or make a particular decision. The detailed procedure for escalating issues will be detailed in the project's Communications Management Plan. In addition, any issue or circumstance that has the potential of impacting the project scope or plan will be escalated to Northrop Grumman management.

# 5. ASSUMPTIONS AND DEPENDENCIES

## 5.1 GENERAL

The following are assumptions and dependencies upon which this SOW and accompanying project schedule are based;

- Northrop Grumman Corporation will assign a part-time program manager, and 3 full time project management resources and a system analyst based on the responsibilities detailed in section 2.2
- The IM Technical Team will be able to dedicate 25% of their time to project related activities.
- Northrop Grumman reserves the right to work on certain holidays recognized by the state that are not recognized by the Contractor.
- Turn around time for deliverable review and approvals will be 10 business days.
- The IMTC will provide radio subject matter experts (SME's) as required.
- The project plan takes into consideration a 5-day workweek with holidays marked as non-working time.
- Ongoing operations support and maintenance after implementation will be transitioned from suppliers to the stakeholders.
- Although Northrop Grumman will maintain the directories containing project information and data, the IMPD is considered the owner of that data.
- Special requests for compiling project related information for distribution may be subject to additional charges.
- The plan assumes that 25 constructions sites are planned for completion during the period of performance. Circumstances outside the control of Northrop Grumman (e.g. Subcontractor delivery, State and County Responsibilities, weather, natural disasters) may impact the schedule and result changes to the scope and or staffing of the contract.

## 5.2 TECHNICAL

- Microwave and VHF installation project plans will be maintained at the detail level by the contractors, with summary level tasks reflected in the master project plan maintained by Northrop Grumman.
- Open dialog will occur between IMTC SME's and contractors as facilitated by Northrop Grumman.

- Frequency acquisition activities will be on-going throughout the life of the project. For planning purposes, it is assumed that as the project nears completion the resource allocation requirements for this task will gradually decrease.

## 5.3 WORK SCHEDULES

- Flex work hours are acceptable, but coverage should run between 7:00 am and 5:30 pm, five days a week.
- Schedules of sub contractors are not monitored, and may include extra days off during the end of year holidays. They may also include 6-day workweeks in some instances.
- For planning purposes, resource availability during the Christmas and New Years holidays will be 50% to compensate for vacations.

# 6. COST ESTIMATE

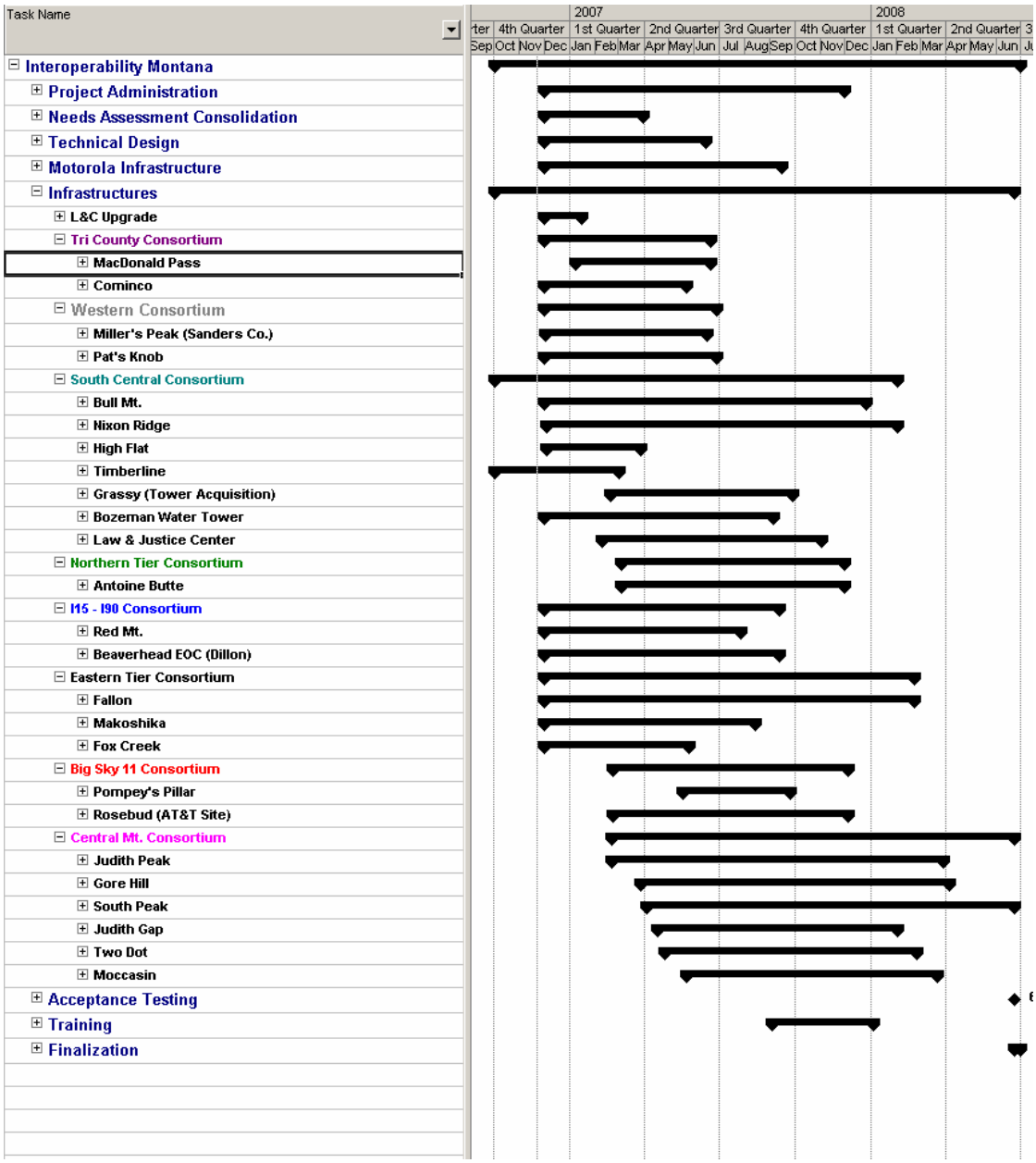
## 6.1 CURRENT COST INFORMATION

| Role | Staff | 2006 Hours | 2006 Rate | 2007 Hours | 2007 Rate | Cost |
|---|---|---|---|---|---|---|
| Project Manager | Mark Adams | 165 | 140 | 1,815 | 145 | 286,275 |
| Project Manager | Barry Anderson | 82.5 | 140 | 907.5 | 145 | 143,138 |
| Program Manager | Denny Espeland | 23 | 155 | 253 | 160 | 44,045 |
| Project Manager | Dave Clouse | 165 | 140 | 1,650 | 145 | 262,350 |
| Project Manager | Tom Smith | 165 | 140 | 1,815 | 145 | 286,275 |
| Business Analyst | Sherry Evans | 157 | 105 | 1,688 | 108 | 198,789 |
| Technical Analyst | Eric Durkin | 18 | 70 | 198 | 72 | 15,516 |
| Project Manager | Patti Williams | 0 | 140 | 360 | 145 | 52,200 |
| Technical Analyst | Jack Dartman | 78.5 | 70 | | | 5,495 |
| | Totals | 854 | | 8,686.5 | | $1,294,083 |

| | Reason | Trips | Cost |
|---|---|---|---|
| **Travel** | Consortium Meetings | 102 | 31,052 |
| | Needs Assessment | 4 | 6,841 |
| | Tower Site Visits | 75 | 12,366 |
| | | Travel Cost | $50,258 |

**Total Estimated Time and Materials Cost is $1,344,341.**

# 7. ESTIMATED PROJECT TIMETABLE



# 8. EXECUTION/SIGNATURE BLOCK

In Witness Whereof, the parties hereto, having read this SOW in its entirety, do agree thereto in each and every particular.

| | |
|---|---|
| Approved: | Approved: |
| _____ | _____ |
| Signature | Signature |
| John Horn, Purchasing Agent<br>Department of Military Affairs<br>State of Montana | Jim Arndell, Senior Manager<br>Northrop Grumman Corporation |
| _____ | _____ |
| Date | Date |